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The Great Crash of 1929 and the Great Depression in the Global Context

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Abstract: The 1920s often called the "Golden 20s" because the equity markets were booming but there were a series of structural issues. Only a few years after the 1st World War the global economy was still suffering from the consequences of the brutal war. The market crash of 1929 came unexpected and shocked the world. It is considered a unique, five sigma event, occurring only once-in–a-lifetime. This paper covers the period before, during and after the Great Crash on Wall Street.

Keywords: Global; Finance; Crisis; Bankruptcy.

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1. Introduction

The market crash of 1929 is considered a unique, five sigma event, occurring only once-in–a-lifetime. The 1920s often called the "Golden 20s" had a series of structural issues: only a few years after the 1st World War the global economy was still suffering from the consequences of the brutal war. In Europe Germany suffered from hyperinflation, an instable political system (the Weimar Republic) and huge reparation payments as a result of the Versailles Treaty. Keynes who was part of the negotiating team had warned of the heavy burden of the reparation duty on the German economy. France was in a transition from an agricultural to an industrialised nation. Great Britain also went through a structural change as many booming sectors (textiles, mining) started to falter. There was a big divide between the wealthy and innovative South East (London and surrounding counties versus the poorer north. Russia in its new identity as the Soviet Union decoupled from the global economy with the implementation of a command economy. China which also changed from an empire to a republic was catching up with the West. By the end of the 19th century the USA had overtaken British Empire as the most powerful economy in the world. The USA had entered the war very late and were not impacted by 1st World War conflicts on their territory. As a consequence of huge war reparation payments of some European countries, huge debt, many European countries (Germany, Italy, Spain, et al) looked mainly after their interests, ignored the global context of their actions and turned to fascism and nationalism. Germany and France both suffered from political instability and many governments in a short period of time.

After the 1929 crash the stock markets bounced a little bit before they started a four-year bear market. Because of the deliberate inactivity of the US central bank the US economy fell into a long recession (the Great Depression). The US stock markets needed 25 years (1929-1954) to reach the pre-crash index levels.

2. Literature Review

The GC, i.e. the events of 1929 were investigated in much detail and over a period of several years by the Subcommittee on Banking and Currency (71st Congress) as well as the Committee on Banking and Currency (72nd and 73rd Congress). The relevant documents are the Commission Reports from 1931, 1932, 1933 and 1934.

The 1931 Hearings and 1931 Commission Report [1] cover the earlier hearings which were held during 1931 when the Subcommittee of the Committee of Banking and Currency interviewed many of the major participants of the crash of 1929.

Vast statistical data on banks is found in the 1931 Statistical Data[2] covering the banks, the branches and the banking system. It shows that the number of incorporated commercial banks fell from 29,000 to 21,000 banks, a reduction of more than 8,000 between 1921 and 1931.[3] It also shows a consolidation in the banking sector due to systematic suspensions of small banks which were not profitable. The analysis of bank costs and earnings shows that a third of the banks made losses between 1926 and 1930 and nearly half of the banks made a profit of only 3%. [4] The part on the branch banking model shows that the number of branch banks increased exponentially from 111 branch banks in 1900 to 3,463

[1] UNITED STATES. CONGRESS. SENATE. COMMITTEE ON BANKING AND CURRENCY. 1931. *Operation of the National and Federal Reserve Banking Systems. Hearings before a Subcommittee of the Committee on Banking and Currency, Seventy-First Congress, Third Session, Pursuant to S. Res. 71*, https://fraser.stlouisfed.org/title/?id=675 visited 18 August 2015

[2] FEDERAL RESERVE COMMITTEE ON BRANCH, GROUP AND CHAIN BANKING: *Statistical Data.* 6 Nov 1931. https://fraser.stlouisfed.org/scribd/?title_id=811&filepath=/docs/historical/federal%20reserve%20history/frcom_br_gp_ch_banking/progress_rpt_statdata19311106.pdf#scribd-open visited 18 August 2015

[3] Ibid.

[4] Ibid. p. 89

branch banks in 1930.[5] In 1931 there were 2,000 banks in 300 different systems of chain and group banking.

After the first set of hearings in 1931 and the publication of the 1931 Report it was clear that the problem was much bigger and the mandate of the first committee had been too narrow. The US Congress launched a second commission to investigate the causes for the crash in more detail with a series of hearings from 1932 until 1934, conducted by the Committee on Banking and Currency.[6]

The Report of the Committee on Banking and Currency pursuant to S. Res. 84 was authorized by Senate Resolution 84 on March 2, 1932, covering the stock exchange practices. Later its scope was broadened with Senate Resolution 56 on April 4, 1933, and Senate Resolution 97 on June 8, 1933. The chief counsels for the hearings and investigations were Claude Branch, William A. Gray and John Marrinan, and as of Jan 24, 1933, Ferdinand Pecora, its final counsel. The commission was later named "Pecora Commission" after Chief Counsel Ferdinand Pecora.

The 1934 documents consist of over 12,000 pages of hearings and 1,000 exhibits covering the history and all aspects of the developments leading to 1929 and after 1929. The final 1934 Report has 400 pages (1932-1934 Hearings and 1934 Commission Report).

The original mandate of the Committee in Banking and Currency was authorized on March 2, 1932, by Resolution 84

"to make a thorough and complete investigation of the practices with respect to the buying and selling and the borrowing and lending of listed securities upon the various stock exchanges, the values of such securities, and the effect of such practices upon interstate and foreign commerce, upon the Federal Reserve System, and upon the mark for securities of the United States Government, and the desirability of the exercise of the taxing power of the United States with respect to any such securities."[7]

On April 4, 1933 the mandate was expanded with Resolution S 56:

"to make a thorough and complete investigation of the operation by any person, firm, co-partnership, company, association ...... ; to make a thorough and complete investigation of the business conduct and practices of securities exchanges and of the members thereof; to make a thorough and complete investigation of the practices with respect to buying and selling and borrowing and lending of securities....; to make a thorough and complete investigation of the effect of all such business operations..."[8]

And on June 8, 1933 the mandate was expanded even further with Resolution S 97:

"That the Committee on Banking and Currency, or any duly authorized subcommittee thereof, shall have authority to investigate any transactions or activities relating to any sale, exchange, purchase, ... Such investigation shall be made with a view to recommend necessary legislation under the taxing power of the Federal Reserve powers."[9]

The commission conducted hearings with the major parties which were involved in the events around the 1929 crash, among them JP Morgan, Kuhn, Loeb & Co, Dillon, Read & Co and many other players as well as trusts and central bankers. The cost of the investigation was approximately $ 250,000, a big amount for the 1930s. However the penalties resulting from the investigations brought in more than $ 2,000,000 by 1934. During the investigations the US Congress enacted three major acts, the Banking Act of 1933 (also referred to as the Glass-Steagall Act after its two congressional sponsors, Senator Carter Glass and Representative Henry B. Steagall), the Securities Act of 1933 and the Securities

[5] Ibid. p. 119

[6] UNITED STATES. CONGRESS. SENATE. COMMITTEE ON BANKING AND CURRENCY. 1932-1941. *Stock Exchange Practices. Hearings before the Committee on Banking and Currency Pursuant to S.Res. 84 and S.Res. 56 and S.Res. 97* https://fraser.stlouisfed.org/title/?id=87 visited 18 August 2015

[7] Ibid.

[8] Ibid. p. 2

[9] Ibid. p. 3

Exchange Act of 1934. This led to the creation of the Securities Exchange Commission ("SEC"), the Federal Deposit Insurance Corporation (FDIC) and the separation of commercial and investment banking. The restrictions of Glass-Steagall were repealed in 1999, leading to the build-up for the 2008 crisis.

The investigations and hearings lasted from March 1932 until June 1934 when the report was submitted and published by the Government Printing Office. Its purpose was to investigate all security transactions, the leverage, fees, the role of the market participants and arrangements between them. The report is structured as follows:

Chapter 1 covers the securities exchange practices with the main topics being margin purchasing, brokers' loans, manipulative devices and activities by directors. Chapter 2 on investment banking practices records the nature and growth of investment banking, the functions of investment bankers, methods and practices. In chapter 3 the commercial banking practices are documented, in particular the nature of commercial banking, the relationship between commercial banks and investment affiliates and securities speculation, abuses and private banking. Chapter 4 focuses only on group banking in Michigan and commercial banking in Ohio, abuses and deficiencies in group banking, and in particular on two trusts, the Guardian Trust and the Union Trust. Chapter 5 looks at income tax avoidance, i.e. by means of transfer of securities to relatives, sale of securities through foreign corporations and with short sales. Chapter 6 is the main chapter on investment trusts and holding companies, describing the structure and history of trust, regulation and abuses. In chapter 7 the authors present their conclusions. The report of 1934 concludes that more regulation was necessary which had already started being put in place with the SEC Act 1933 and the SE Act of 1934, whereby the SEC got jurisdiction over the source and traffic in securities, and banking received three important principles: the separation of monetary policy, deposit insurance, and the separation of investment banking and commercial banking. In addition investment trusts were regulated in order to protect investments and the investors.

The Commission Report of 1934 is a key component for the understanding of the details of the GC (technical details as well as actions by the players). It is extremely comprehensive as it covers investment banking, corporate banking, private banking and chain banking, as well as other aspects such as investment trusts, holding companies and tax driven transactions on 400 pages.

In their monumental book "A Monetary History of the United States 1867-1960"[10] Milton Friedman and Anna Schwarz discuss the monetary institutions, policies and instruments of US Federal Reserve Systems, before and after the 1929 crash. It is an excellent analysis of the development of monetary policy in the United States of America.

J.K. Galbraith wrote a classic account of the Great Crash of 1929.[11] In 1954 Galbraith was asked by Arthur M Schlesinger to write "a definite work on the Great Depression".[12] Schlesinger wanted to use the material as a basis for his biography on President Roosevelt. Galbraith agreed to write an account covering the events up to the Crash. Galbraith calls 1929 the "greatest cycle of speculative boom and collapse in modern times- since, in fact, the South Sea bubble"[13] and hence considers it an important factor in keeping its memory alive. "The Story of 1929 boom and crash is worth telling for its own sake as a protection against financial illusion or insanity, memory is far better than law".[14] He wrote the original version in 1954, 25 years after the Crash. In later versions he laments that by the 1960s the memory had faded and new versions of financial instruments had emerged, replacing the popular investment trusts of 1929: mutual funds and the new fund of funds concept.

[10]FRIEDMAN, Milton and SCHWARTZ, Anna. 1993. *A monetary history of the US, 1867-1960*, Princeton University Press, Princeton. p.151

[11] GALBRAITH, John Kenneth. 1955. The Great Crash 1929, London: Penguin (reprint 2009)

[12] Ibid. p. 12

[13] Ibid. p. 9

[14] Ibid. p. 9

In "The Causes of the 1929 Stock Market Crash" Harold Bierman, Jr. offers an alternative analysis of the GC. [15]

Laurence A. Tisch Professor of History at Harvard University Niall Ferguson gives his views on the crisis of 1929 in his book "The Ascent of Money".[16] He writes that "*some financial disasters have obvious causes*"[17] and the "*Crash of 1929 is much harder to explain*"[18]. He mentions Irving Fisher at Yale University who said on the 16th of October 1929 that "US stock prices would stay permanently at a high plateau". He feels that the depression of 1914 and the developments 10 to 15 years before are a better explanation for the crash. He mentions that in 1929 there was no shortage of pool activity and there were many enhanced technological innovations. Some of the companies that he quotes are DuPont (nylon), Procter & Gamble (soap powder), Revlon (cosmetics), Radio Corporation of America (RCA; electronics), and IBM (accounting machines).

An important source for the discussion of crises is the analysis by Carmen M Reinhart and Kenneth S Rogoff, This time is different [19] in which the authors develop a history and qualitative analysis of crises, based on a huge data base of macro-economic data, going back to the 13th century. Other sources include Manias, Panics and Crashes: A History of Financial Crises by Charles Kindleberger[20] (who also uses Minsky's model to explain crises), Crisis Economics by Nouriel Roubini[21] (who is credited with having foreseen respectively predicted the crisis) and The Black Swan: The Impact of the Highly Improbable by Nassim N Taleb[22], another early prophet of the dangers of a serious market correction and a collapse.

In the classic and neo classic theory crises are no issues as any excess supply would find its demand, according to Say's theorem. In the late 19th the research into cycles started and in the 1920 business cycle analysis became mainstream. The view of the Austrian School (Ludwig von Mises, Friedrich von Hayek) was that the GC was the result of a boom in the 1920 with distortions leading to a slow process of painful adaptions. Mises and his school thought the best the state could do was to patiently wait for the process to pane out. Joseph Schumpeter's analysis was different in that he saw the crisis as the collision of several business cycles, unavoidable but part of the structural change and adaption process. These were part of the liberal views that the capitalist economy was innovative enough to adapt to new circumstances. They explain the crisis as a special case of business cycles. During the crisis economist started to call for a bigger and stronger role of the state in fight against the depression. Keynes' contribution with his 1936 "General Theory of Employment, Interest and Money" is considered a mile stone in the development of this approach. The Keynesian view is that the economy tends to be in disequilibrium – contrary to the neoclassical view which stipulated equilibrium – but could be stable under certain circumstances. Keynes recommended contra-cyclical policies by the state.[23]

Over the last century many economists have covered or touched on the topic of speculation: Keynes discussed the speculative behaviour of firms[24], Minsky[25] and Friedman[26] also looked at the question and the role of speculators, however this was mainly from a macro-economic point of view.

Keynes was not so much concerned with the speculators themselves but rather the impact of speculation on companies and the change in the role of enterprises. This view was probably influenced

[15] BIERMAN, Harold. 1998. *The Causes of the 1929 Stock Market Crash: A Speculative Orgy Or a New Era?,* London: Greenwood Publishing Group

[16] FERGUSON, Niall. 2008. *The Ascent of Money*, New York: Penguin (2008)

[17] Ibid. p. 159

[18] Ibid. p. 159

[19] REINHART (2009) op. cit.

[20] KINDLEBERGER (2005) op. cit.

[21] ROUBINI, Nouriel. 2010. *Crisis Economics.* London: Penguin Books

[22] TALEB, Nassim Nicholas. 2007. *The Black Swan: The Impact of the Highly Improbable*. New York: Random House.

[23] HESSE (2014) op.cit. p. 181 ff

[24] KEYNES, John Maynard. 1936. The General Theory of Employment, Interest and Money. Basingstoke, Hampshire: Palgrave Macmillan (reprint 2007).

[25] MINSKY (1992) op. cit.

[26] Friedman, Milton. 1953. "The Case for Flexible Exchange Rates." In Friedman. Essays in Positive Economics. Chicago: University of Chicago Press

by the role companies played in the market hype before and leading up to 1929, when they provided funds for speculators using working capital and raising money on the stock exchange to benefit from the quasi risk free returns that could be achieved (e.g. via broker loans, investment trusts et al). This was an early shadow banking system. I will discuss this phenomenon in more detail in Chapter 4.
By contrast the monetarist view of Milton Friedman and Anna Schwartz focused purely on the function of the money supply. For the monetarists money is more than the Keynesian veil but a main factor reflected in the equation $M*V = P*T$ (money supply times velocity equal price levels times transactions). An increase in the money supply and / or the velocity would lead to an increase in prices as the transactions remain stable in the short run.[27] Former Fed chairman Ben Bernanke researched the GC in much detail and designed the Fed's policy in GFC on the basis of his research.[28] [29]
The difference in the money hypothesis of monetarists versus the spending hypothesis of the Keynes was discussed by Peter Temin. He rejected both the monetary explanation as well as the fiscal explanation and suggested that complex models and more data would be required. [30]
Barry Eichengreen analysed the gold standard of the 1920s and 1930s adopted by many countries to back their currencies and found that it played a big part in the crisis. In order to defend capital flight higher interest rates were required leading to deflation and the Great Depression.[31] Ben Bernanke refers to him in his analysis of the Great Depression.[32]

The American economist Hyman Minsky focused on the speculative aspects of markets and participants. He developed his "Financial Instability Hypothesis" in order to describe the impact of debt on system behaviour, different market participants and the change from stable to unstable systems.[33] Kindleberger uses Minsky's model to analyse and interpret the financial crises and crashes of the 20th Century.[34] He differentiates between insiders and outsiders. Insiders are to destabilize, outsiders to stabilize markets.[35] Minsky developed his theory covering financial instability, its causes and players.[36] In essence it is a theory of speculation, explaining the role of participants (cf. chapter 1.2 Risk - Return Profiles, Minsky's Three Types of Borrowers and the LP-LT Approach) and the consequences of their behaviour for the economy. Minsky's theory is based on his work on Keynes' earlier papers[37] as well as his main paper of 1992. The beauty of his theory lies in the abstract form, in which he describes the participants, the different stages of the economy and the trend from a stable to an instable state. He didn't use any mathematics or tests to prove his theory. In the last 20 years academics have developed new analytical concepts in order to test Minsky's purely theoretical approach.

Minsky is generally considered a Post Keynesian. He explains his theory on Keynes as an interpretation of the "General Theory". He rejects the classic views of equilibrium seeking and sustaining systems (e.g. Adam Smith and Leon Walras) and mentions the work of Irving Fisher and Joseph Schumpeter as important concepts for his theory. Randall Wray calls the work of Minsky "one of the most important links between Post Keynesians and Institutionalist".[38] Minsky studied under Joseph Schumpeter and Wassily Leontief who were his PhD supervisors and influenced him regarding the business cycle aspects of his work. Other influencers were Chicago University and Berkeley University colleagues. At Berkeley he developed the concept of cash flows and the role of institutions,

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[27] HESSE (2014) op.cit. p. 186

[28] BERNANKE, Ben. Essays on the Great Depression. 2004. Princeton: Princeton University Press.

[29] BERNANKE, Ben S. 1994. *The Macroeconomics of the Great Depression: A Comparative Approach*. NBER Working Paper No. W4814. Available at SSRN: http://ssrn.com/abstract=226519 visited 12 April 2013

[30] TEMIN, Peter. Did monetary forces cause the Great Depression? 1976. New York: W. W. Norton & Company

[31] EICHENGREEN, Barry. Golden Fetters: The Gold Standard and the Great Depression, 1919–1939. 1992. Oxford: Oxford University Press.

[32] BERNANKE (2004). Op. cit.

[33] MINSKY (1992) op. cit.

[34] KINDLEBERGER (2005) op. cit.

[35] Ibid. p. 33 & p. 39

[36] MINSKY (1992) op. cit.

[37] MINSKY, Hyman P. 1986. *Stabilising an Unstable Economy.* Yale: Yale University Press.

[38] PAPADIMITROU, Dimitri B., WRAY, L. Randall, The Economic Contributions of Hyman Minsky: varieties of capitalism and institutional reform. 1998. Review of Political Economy. London: Routledge p. 201

ran banking seminars and later joined the board of Mark Twain Bank where he got practical experience.[39] While considered a Post Keynesian Minsky himself didn't like the term and preferred "financial Keynesian" in recognition of Keynes's work and his contribution from the financial markets perspective.[40] He focused on the role of institutions and the instability of markets. In his later years Minsky researched at the Jerome Levy Economics Institute at Bard College. His contribution was the endogenous aspects in his theory. He identified endogenous variables in his multi-accelerator analysis of the economy and applied it to the stock boom of the 1920s and the GC.[41]

In 1957 Minsky showed how innovation at banks were endogenous ways to provide cheaper funding at times of raising interest rates.[42] Wray assigns the 1970s as the period when he became a Post Keynesian in the 1970s.[43] Later at the Jerome Levy Economics Institute he revisited policies regarding the role of the government (advocating a big role of governments), financial reform (in particular the role of the Fed to mitigate moral hazard) and market power (countercyclical on macro level, no intervention on micro level – at banks and firms).[44] In 1996 Minsky developed the concepts of the money manager capitalism describing how pension and mutual fund managers due to their short term considerations (e.g. daily marking to market of positions) induce more uncertainty.[45] The Levy Economics Institute of Bard College in New York State runs an annual conference dedicated to Hyman Minsky's work. Randall Wray is a now a professor and senior researcher there, too. Other Post Keynesians include Nicholas Kaldor (main works on business cycles), Michal Kalecki (works on business cycles, early econometrics in macroeconomics), Jan Kregel and Paul Davidson (co-founding editor of the Journal of Post Keynesian Economics; focuses mainly on economic policy aspects). Among the younger Post Keynesians are Randall Wray and Steve Keen who were both influenced by Minsky. Wray has been writing extensively on Keynes and Minsky (analysing the endogeneity of banking, market stability et al). Keen has been working on the mathematical modelling of Minsky's theories and the development of software to understand Minsky better.

Minsky analysed the endogenous 'boom-and-bust' pro-cyclicality of the markets. He starts his theory with the "characterization of the economy as a capitalist economy with expensive capital assets and a complex, sophisticated financial system"[46]. He explains the capitalist development as an exchange of cash flows, "present money" for "future money", whereby present money pays for production now and future money stands for profits. The capital stock, i.e. real assets, is financed by liabilities on the balance sheet of economic units as they borrow to own these assets. Minsky quotes Keynes who acknowledges the role of banking in the process and calls it the "veil of money between real asset and the wealth owner".[47] The Keynesian "veil of money" differs from the Quantity Theory veil of money, which he sees as money for goods and goods for money, hence really goods for goods, while the Keynesian veil of money looks at financing through time. Money flows from depositors to banks and from banks to firms, and later back from firms to banks and depositors. The flow of money occurs because of the expectation of future profits. The time connection between past, present and future, is key to the financial relation and the link between creation and ownership of real assets. Minsky mentions that the liability structure exists with firms, as well as households, governments and international units. The roles of governments in preventing 1929-1933 depression scenarios are also mentioned. Minsky also incorporates the Kalecky - Levy explanation of profits which are determined by aggregate demand.[48] Minsky calls the Financial Instability Hypothesis "a theory of the impact of debt on system behaviour and also incorporates the manner debt is validated".[49] Banking is an important function and bankers are profit seeking "merchants of debt who strive to innovate in the assets they

[39] Ibid. p. 200
[40] Ibid. p. 201
[41] Ibid. p. 202
[42] Ibid.
[43] Ibid.
[44] Ibid. p. 213
[45] Ibid. p. 215
[46] MINSKY (1986) op. cit. p. 2
[47] Ibid. p.3
[48] Ibid. p.5
[49] Ibid. p.6

acquire and liabilities they market". Minsky notes the innovative character of banking and finance which invalidates the orthodox Quantity Theory of Money and their interpretation of the velocity of money.

Minsky deduces two theorems from the financial instability hypothesis:

- In the first theorem he states that an economy has financing regimes under which it is stable and financing regimes under which it is unstable.
- In the second theorem he states that the economy transits after a period of prolonged stability to an unstable system.
- In the event of inflationary pressures the leverage in speculative units and Ponzi units can lead to forced selling and to a market crisis. (cf. chapter 1.2 Risk-Return Profiles, Minsky's Three Types of Borrowers and the LP-LT Approach).

Minsky finishes his paper stressing that "the financial instability hypothesis is a model of the capitalist economy which does not rely upon exogenous shocks to generate business cycles of varying severity."[50] Business cycles are a result of internal (endogenous) developments as well as interventions and regulations. In his early work he created the "endogenous money" approach that was revived by Post Keynesians in the 1980s and developed his analysis of the cycles. Through his analysis and own theory he developed an alternative analysis of Keynes's theory.

Minsky's abstract, but very clear financial instability hypothesis with its theorems and three financing units is also useful to analyse, describe and explain the developments of 1929 and 2008, that is the shift from a stable economy to an instable economy. Minsky's pre-analytical vision is called the "Wall Street Paradigm".[51] Minsky puts the emphasis on the network of financial relationships and cash flows. The real economy, i.e. production and distribution follow the financial relationships. Minsky concludes that the "capitalistic market mechanism is coherently instable".[52]

In 1998 Paul McCulley of PIMCO coined the term "Minsky moment" to describe the Russian debt/ LTCM crisis. It was also used in the aftermath of 2008.[53]

3. Discussion

Historic Background of the Great Crash of 1929

The 1920s often called the "Golden 20s" had a series of structural issues: only a few years after the 1st World War the global economy was still suffering from the consequences of the brutal war. In Europe Germany suffered from hyperinflation, an instable political system (the Weimar Republic) and huge reparation payments as a result of the Versailles Treaty. Keynes who was part of the negotiating team had warned of the heavy burden of the reparation duty on the German economy. France was in a transition from an agricultural to an industrialised nation. Great Britain also went through a structural change as many booming sectors (textiles, mining) started to falter. There was a big divide between the wealthy and innovative South East (London and surrounding counties versus the poorer north. Russia in its new identity as the Soviet Union decoupled from the global economy with the implementation of a command economy. China which also changed from an empire to a republic was catching up with the West. By the end of the 19th century the USA had overtaken British Empire as the most powerful economy in the world. The USA had entered the war very late and were not impacted by 1st World War conflicts on their territory. As a consequence of huge war reparation payments of some European countries, huge debt, many European countries (Germany, Italy, Spain, et al) looked mainly after their interests, ignored the global context of their actions and turned to fascism

[50] Ibid. p.8

[51] SCHNYDER, MARC. 2002. *Die Hypothese der finanziellen Instabilität*, Dissertation, Universität Freiburg, Schweiz, p. 30

[52] Ibid. p. 30

[53] MCCULLEY, Paul. 2009. *The Shadow Banking System and Hyman Minsky's Economic Journey* available at: http://media.pimco-global.com/pdfs/pdf/GCB%20Focus%20May%2009.pdf?WT.cg_n=PIMCO-US&WT.ti=GCB%20Focus%20May%2009.pdf visited 12 April 2010

and nationalism. Germany and France both suffered from political instability and many governments in a short period of time.

The Gold Standard

Before the 1st World War most countries used a gold standard or a silver standard for their currencies which they suspended during the 1st World War. In the 1920s most countries in Europe and globally returned to the gold standard: in 1922 an international conference recommended the reintroduction which was delayed due to Germany's hyperinflation. By 1926 Britain, France, Germany, Belgium, Switzerland and other European countries as well as the USA adopted gold as the cover for their currencies. Countries had different targets for the percentage of gold they would need to hold against their money supply. Britain which still felt to be an empire chose the pre-war level for the exchange rate (1 Pound – 4.82 Dollars) which overvalued the Pound by approximately 10%. France by contrast devalued its currency the Franc but chose a high percentage for gold reserves. This led to distortions in the gold markets and created issues in the European economies. Paris became a leading financial market place and the Banque of France an important lender to other central banks, e.g. Great Britain and Austria (in the bail out of Creditanstalt in 1931). Most currencies were fixed to each other via the gold standard.[54]

The overvaluation of the Pound led to a massive gold transfers to France and the USA. Instead of providing a balance for the trade flows between countries investors moved money to the booming US stock markets. After the crash when investors withdrew gold most countries stopped the gold standard: Germany and Britain in 1931, the USA in 1933 and France and the remaining European countries only in 1936. In 1944 a new currency system – Bretton Woods – was introduced which linked the currencies to the US Dollar which again was convertible into Gold.

The Crisis in Germany

Germany did not have a speculative stock market like in the USA but suffered a crisis nevertheless. The reasons for crisis were different: it was a cyclical crisis, due to hyperinflation in the first half of the 1920's, huge reparation payments due to the war (over 300% of GDP), protective customs from other countries, an oversupply on the agricultural markets and the global exchange rate regime, the gold standard. The Weimar Republic suffered from political instability. On the economic front a recession crisis in 1926 was followed by a mini boom in 1927-28 before the 1929 crisis. In 1931 a banking crisis – a contagion from Austria – hit the country. Deflationary policies worsened the situation. The height of crisis was reached in 1932 with over 30% unemployment. Due to political instability and the unpopular Heinrich Bruenning government von Papen took over as chancellor but lost in the 1932 elections and Hitler got to power in January 1933. The recovery started in summer 1932 but too late the democratic governments. The economy shrank by 30% during the crisis. [55]

United Kingdom

In the UK the impression was that of no crisis in 1929. The GDP fell by only 5% versus a 30% in the USA and in Germany. There was a big divide between the wealthy south-east and the poorer north and north-west. Due to the overvaluation of the Pound, Britain left the gold standard in 1931 and devalued Pound by 1/3 which surprisingly led to no inflation.[56] Unemployment rose from 1.2m in 1929 to 2.85 in 1932. [57] The recovery was slow and started in 1933. Exports in cotton, coal, steel dropped. Keynes was part of the MacMillan commission which discussed crisis strategies. The devaluation was good for the UK and the Pound Sterling block (colonies and common wealth). Gold price surge was very positive for South Africa and Rhodesia in particular.

France

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[54] HESSE (2014) op. cit.

[55] Ibid. p. 55 ff.

[56] Ibid. p. 90

[57] Ibid. p. 85

Like in Britain there was no sign of a crisis in France until 1930. The French Franc was undervalued and the country had massive reserves, an advantage that turned to a disadvantage when Germany, Britain and in 1933 USA left the gold standard. While the country was politically unstable, the Banque de France was an important player. France was a very populous country in the 19th century (30 m) but due to slow growth in population had only 40 m people by 1st World War. The country had high foreign debt of 156% [58] versus USA, but reparation claims versus Germany. Th egold cover rose from 38% in 1928 to 77% in 1932. [59] The Banque de France helped with the Creditanstalt bail-out in 1931.France increased the protectionism against imported goods. The country suffered very much from a price plunge in agricultural goods.

China

China was not wealthy enough for a gold standard and chose the more affordable silver standard. It was affected by the international crisis late, in 1931. Due to political instability and the 1935 deflation China suffered from massive capital flight. When China departed from the silver standard in 1935, high inflation hit the country.

Soviet Union

Due to the 1917 revolution and due to the transition to the socialist command economy the industry of the Soviet Union was in isolation from the West, hence there was little impact initially from the crisis. However there was still some exchange of goods and temporary elements of capitalist policies: the New Economic Policy (NEP) allowed some ownership. But with the 5 year plan in 1927 major mistakes were made – mainly in the agricultural sector – e.eg a lack of tractors led to poor harvests and a hunger crisis in 1932/33. In the industry there was a boom, though from a low level. Due to the hunger crisis many farmers moved to towns.[60]

USA

The USA was hit the hardest by GC. Speculative bubble led to the GC, deflation and ultimately the Great Depression. I divide the cycle in the USA before and after the GC into the following three periods:

The Build-up to the Crisis (1924-1928): the bull market started in 1924.

The Speculative Bull Market of 1929: the months from January 1929 to October 1929 were characterized by extreme speculation.

The Great Crash of 1929: the stock market burst in October and sold off until 1933 when it reached the low of the market.

The Great Depression was the consequence of the GC, the banking crisis in the early 1930s and the mistakes of the politicians and the inactivity of the Fed. The market sold off from 1929 until 1933, and the Great Depression lasted until the late 1930s in the US and Europe (cf. Chart 1: S&P 500: 1927-1954 with recession periods).

After the short bear market of 1920/1921 the economic environment of the 1920s was favourable. The economic situation in the 1920s is generally considered a period of economic growth, stability and happy times. While farmers, Native Americans and Afro-Americans did not prosper, the rest of the population, the majority, benefited from the post-First World War recovery. Friedman describes the period of 1923-9 as a period of "relatively steady growth"[61], interrupted by two short, rather mild recessions, from May 1923 to July 1924 and from October 1926 to November 1927. The macro data shows that the number of manufacturing establishments grew from 183,900 to 206,700; the output

[58] Ibid. 131

[59] Ibid 137

[60] Ibid. p. 162

[61] FRIEDMAN (1961) op. cit. p. 241

increased from $60 b to $69 b; the Federal Reserve Index of industrial production went from 67 in 1921 to 100 in 1925 and grew to 126 in 1929[62]. Imports rose, capital was exported and the US stock market turned bullish. There was a trend for getting rich quickly, firstly via the real estate markets and later via the stock markets.

The Build-up to the Crisis (1924-1928)

Most market commentators agree that stocks had cheap valuations in the early 1920s. Many analysts see 1924 as the start of the five-year bull market which led to the Great Crash of 1929. Galbraith sets the start of the stock market boom in the 2nd half of 1924 and uses the New York Times Industrial Average which, however, is no longer used in markets or in research. I refer to the New York Times Index when quoting Galbraith and use the nowadays generally more accepted Dow Jones Industrial Average ("DJIA") and the S&P 500 for the quantitative analysis. [63]

The Federal Reserve Board (Fed) which was originally established in 1913 received a new charter in 1922 and developed a more sophisticated monetary policy with new monetary instruments. On the political side President Coolidge (1925-1929) and later President Hoover (19929-1933) pursued a "laissez-faire strategy". Other major characteristics were a lack of regulation, the gold standard and an "easy money policy".

In 1925 under Treasurer (later Prime Minister) Sir Winston Churchill the UK returned to the gold standard and fixed the Pound Sterling at a seriously overvalued level of $ 4.86.

Because of the overvaluation of the British Pound Sterling a result of the gold standard speculative money was flowing from the UK and the rest Europe to the US. Leverage became very popular with institutions (via the holding company structures), retail investors (via margin loans) and investment trusts (via preferred shares and debt). Many corporates also engaged into the provision of leverage via broker and call loans and created a new unrelated shadow banking system. In 1927 the three European countries UK, France and Germany asked the US for easy money policy to which the Federal Reserve agreed and cut its rediscount rate from 4 to 3.5%. Adolph Miller, a dissenting member of the NY Fed called this "the greatest and boldest operation…resulted in costly errors"[64]. Galbraith believes that the "Federal authorities were responsible for the speculation and the collapse"[65].

Like many bubbles before and after, the overvaluation of 1920 started with a real estate bubble in Florida. In the early 1920s Florida had become a holiday and retirement destination for many Americans due to its sunny weather all year long (Florida is also called the "sunny state"). In the mid-1920s the real estate market in Florida took off with enormous real estate developments in Miami, Miami Beach and neighbouring areas. Florida was very popular because of its location, climate and mild weather in the winter.

The real estate speculation was carried out with new instruments, the "binders" (i.e. a set of documents with the key information) where investors would not buy the land itself but rather the right to buy the land at certain a price. Many farmers sold their land at inflated prices which was very often land without street names or infrastructure. Land was subdivided to make it easier to sell to retail investors. The real estate market became highly speculative as the land was sold for a 10% deposit, effectively a 90% loan or 10 times leverage (similar to a derivative). The speculators were not interested in the ownership or the yield, but the capital gain only with the clear idea of selling onwards as soon as possible.

One player was Charles Ponzi who became infamous in 1920-21 for his pyramid scheme involving postal vouchers where he promised investors excessive profits, later named Ponzi scheme after him. Ponzi had been jailed many times for several accounts of fraudulent activities in the 1910s and 1920s.

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[62] US Department of Commerce, Bureau of the Census, Statistical Abstract of the United States of America, 1944-45, in GALBRATH (2009) op. cit. p. 31

[63] GALBRAITH (2009) op. cit. p. 36

[64] Ibid. p.39

[65] Ibid. p.39

After release on bail and escape to Florida he started a real estate Ponzi scheme and was active in the real estate boom of 1925. After the collapse of real estate in 1926 many farmers who had sold their land to developers before bought their land back cheaply.

After the collapse in real estate prices the market did not recover for many years. The consequences were severe. For example bank clearings at Miami banks dropped from $ 1.06 b in 1926 to a level of only $ 143m in 1928. Galbraith uses the real estate boom and collapse in Florida as an example for two major developments in the 1920 in the US: on the one hand the American spirit that the middle class could become rich, and secondly the speculative nature of many people.

When the Florida real estate market collapsed in 1926 it hardly affected the stock markets which were driven by new technology (e.g. radio), new instruments (investment trusts) and an increased level of leverage. Investment trusts were relatively new instruments for US investors.

The stimulus of low interest rates (rate cut of 1927) led to investments in stocks and finance (broker loans et al) for stock purchases. As the trading volume in stocks increased, speculators entered the markets and used more leverage via the "call market" and "margin accounts". Many authors see 1927 as the moment when the speculation started to get serious[66]. In the stock market speculation happened via margin buying: investors purchased securities despite the low yields of stocks. Investors were only interested in the capital gains aspect and used leverage which was provided via loans from banks to brokers (broker loans) and brokers to customers (margin accounts) against collateral. The banks refinanced their operations with the Fed. Corporates also entered the call market providing loans directly to brokers (leaving out the banks as middle men) as rates on call loans were very attractive: rates of 12% and higher (against collateral).

Galbraith writes that "early in 1928 the nature of the boom changed"[67]: while the winter of 1928 was quiet, in March 1928 the index rose sharply. Popular and speculative stocks such as RCA were very volatile and the trading volume went up as well[68]: 3.8m shares traded on 12 March 1928, 4.7m shares on 27 March 1928 and 5m shares on 12 June 1928. The market in the fall of 1928 had a positive tone. Galbraith quotes Babson: "the election of Hoover and a Republican Congress should result in continued prosperity for 1929".[69] Treasury Secretary Andrew Mellon said "there is no cause for worry.[70] After Hoover won the presidential elections in a landslide victory the speculation continued bullish as the market was pricing in a victory boom. In December 1928 the market sold off.

Galbraith observes that "it was most likely that the boom would end before the year was out".[71] There was a real choice between an immediate and a deliberately engineered collapse and a more serious disaster later on. Galbraith blames the President, the Treasury Secretary, the Federal Reserve Board in Washington and the Federal Reserve Board in New York for their inactivity.

The US President for the period 1923-1929 was Calvin Coolidge, a Republican. On 4 December 1928 in his "State of the Union" address, before leaving office, Coolidge expressed extreme optimism and satisfaction on the status of the economy, the foreign policy and the outlook. He praised in particular the "integrity and character of the American people". [72] Coolidge was later criticized for his lack of analysis and ignorance of the pending economic woes and the speculative bubble.

The Speculative Bull Market of 1929

The stock market which had started on cheap valuations became overheated by 1929 and was no longer cheap. Despite expensive valuations, expensive broker loans and margin accounts investors and speculators continued to put money into the stock market driving the stock market up even more.

[66] Ibid. p. 53
[67] Ibid. p. 40
[68] Ibid. p. 44-45
[69] Ibid. p. 43
[70] Ibid. p.44
[71] Ibid. p.51
[72] Ibid. p.30

In order to illustrate the mood of 1928-1929 Galbraith quotes Will Payne who wrote in the January 1929 issue of "World's Work" that the difference between gamblers and investors is that "*a gambler wins only because someone else loses*"[73]. In March 1929 the newly elected President Hoover took over and the market continued its bullish tone until the end of the month. When the Fed wanted to raise rates the markets panicked and sold off heavily. This was a prelude to the events of October 1929. On 25 March 1929 broker loans reached interest rates of +14% p.a. and 8.2m shares were traded on the New York Stock Exchange (NYSE). On 26 March 1929 call money reached interest rates levels of 20% p.a.. Chairman Mitchell of the National City Bank, who was also a director of the NY Fed, was at odds with the Fed's stance on rates and speculation. Galbraith writes that Charles E. Mitchell was all for the boom[74]: "We feel that we have an obligation which is paramount to any Federal Reserve warning, or anything else, to avert any dangerous crisis in the money market."

Bierman criticizes the many voices that warned of a speculative orgy. He believes that these were exaggerations. However he concedes that margin buying was expensive as stock dividends were 3% while broker loans and margin accounts were between 6-15%. Nevertheless he argues that the efforts to stop speculation created a climate to support the crash.[75]

In April 1929 William Crapo Durant, a famous speculator of the 1920s supposedly warned President Hoover of an imminent crash unless "the board were not called off"[76]. The Fed stopped intervening and the markets continued to rise in May 1929. Without any Fed action to stop the speculative bull market the stock market rallied further in the summer of 1929 (in June +52 points, in July +25 points and in August +33 points, in total the index up went up 110 points from 339 points to 449 points, a rise of 32%).

Trading volume in stocks on the NYSE during the summer was very high, never below 3 million shares per day, on average 4-5 million; however trading was no longer a good indicator of the interest in the markets. The market was impacted by new issues such as Shenandoah, Blue Ridge, Pennroad, and Insull Utilities.[77] Now many new issues in investment trusts were no longer listed on the Big Board (NYSE) but rather on the New York Curb. [78]

In the summer of 1929 some stocks rallied between 50-100% (cf. 4.3 Examples of Major Speculative Titles of the 1920s; Table 7: Performance of Selected Stocks: Summer 1929). The Fed tried to cool down the speculative bull market by raising the rediscount rate to 6% in August 1929. It is interesting to note that in 1929 Franklin D Roosevelt was the Governor of New York and in charge of the New York stock market. In 1933 Roosevelt became the president of the USA and engineered the new economic program, the "New Deal" which would lead the country out of the Great Depression. The markets peaked in September 1929 and started to slide, but the real correction started in October, with the famous "Black Thursday" and "Black Tuesday".

The Great Crash of 1929

After the Labour Day holiday on September 2, the markets were strong on September 3 but started to break on September 5.

According to Galbraith one trigger for the break in the market was the Hatry Affair[79], the collapse of Clarence Hatry's enterprises in the UK. Hatry was a UK financier who had built up a mini conglomerate of companies and investment trusts. In 1929 when Hatry tried to borrow money from one of his own companies to buy United Steel, a British steel making company, the deal did not go through. Charges of forgery and conspiracy were brought against Hatry and he was convicted. Bierman argues that

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[73]Ibid. p.50
[74] Ibid. p.63
[75] BIERMAN (1998) op. cit. p. 39
[76] GALBRAITH (2009) op. cit. p.66
[77] Ibid. p.91
[78] The New York Curb was the smaller exchange later renamed American Stock Exchange.
[79] GALBRAITH (2009) op. cit. p. 213

Clarence Hatry was rather a tragedy as he was a rather aggressive and desperate businessman but not the reason for the crash.[80]

In October 1929 bad news hit the wires: first the ruling of the Massachusetts Department of Public Utilities that Boston utility company Babson Alison was not allowed to split its stock.[81] While the news had a negative impact on the markets, many participants continued to be bulls. National City Bank chairman Charles Mitchell on a trip to Germany praised the US industrial condition and Professor Irving Fisher made a historic announcement about the potential of the stock market.[82] The stock market was down on Saturday 19th October (the stock markets were open on Saturday mornings) and after more negative news in the New York Times on Sunday 20th October leading to margin calls for clients massive trading volume of more than 6m shares (third largest volume) on Monday.[83] The negative markets continued on Tuesday October 22 and Wednesday October 23, with heavy losses. The entire month was volatile and dominated by falling stock prices.

Thursday, October 24, 1929, became known as the Black Thursday when a total of 12.8m shares changed hands. Panic started in the morning with huge crowds outside brokerage firms and the NYSE in Broad Street. At noon representatives of the major banks, Charles Mitchell (National City Bank), Albert Wiggin (Chairman of Chase Manhattan), William Potter (president of the Guaranty Trust Company), Seward Prosser (Chairman of the Bankers Trust Company) and the host Thomas Lamont (senior partner of JP Morgan) met at the offices of JP Morgan.[84] After the emergency meeting the market recovered slightly as news from the meeting reached the stock exchange and banks apparently intervened in the market. Stocks were extremely volatile on that day. Trading on the following two days, Friday and Saturday, continued with big volumes with a lot of liquidations of positions due to margin calls. Nevertheless market participants like Charles Mitchell and Charles Schwab made positive announcements about the industry and about the stock market.

On Monday, October 28, 1929, the selling continued and the bankers gathered again at JP Morgan's offices in the afternoon[85]. However this time the statement released after the meeting did not calm the markets and the selling continued.

The climax was on Tuesday, October 29, 1929, known as "Black Tuesday". The markets opened with heavy selling: some stocks which had already dropped the previous day suffered further extreme losses. As an example investment trust Goldman Sachs Trading Corporation had traded from 60 to 35 on Monday, opened at 10 and slipped then to 3 on Black Tuesday.[86] The bankers met again on October 29, first at noon and again in the evening. The group issued a statement that they would not support the market but rather make sure that the sell-off happened in an organized fashion. In addition many corporations and other providers of capital started to recall their funding (broker loans and call money) leading to the more liquidations of margin accounts. This liquidation of the shadow banking system had to be replaced by loans by the banks which needed refinancing from the Federal Reserve. The Federal Reserve Members and the Governing Committee of the NYSE also met in the afternoon of October 29. It was discussed whether the stock exchange should close, however, it was decided that the market would stay open because many wanted to close their positions. Galbraith describes the meetings as "nervous deliberations".[87]

The following day the market recovered and on Thursday, October 31, 1929, there was only a short session of three hour trading when over 7m shares changed hands[88]. The Fed showed a big drop in

[80] BIERMAN (1998) op. cit. p. 39
[81] GALBRAITH (2009) op. cit. p. 117
[82] Ibid. p.118
[83] Ibid. p.118
[84] Ibid. p.123
[85] Ibid. p.131
[86] Ibid. p.134
[87] Ibid. p.139
[88] Ibid. p.141

broker loans, cut the margin requirements and lowered the rediscount rate from 6% to 5% in order to support the stock market.

Over the weekend more bad news came out such as the failure of a $ 20 million company in Minneapolis. The fall in the stock market had a massive effect on investment trusts such as Blue Ridge, Shenandoah and the above mentioned Goldman Sachs Trading Corporation.[89]

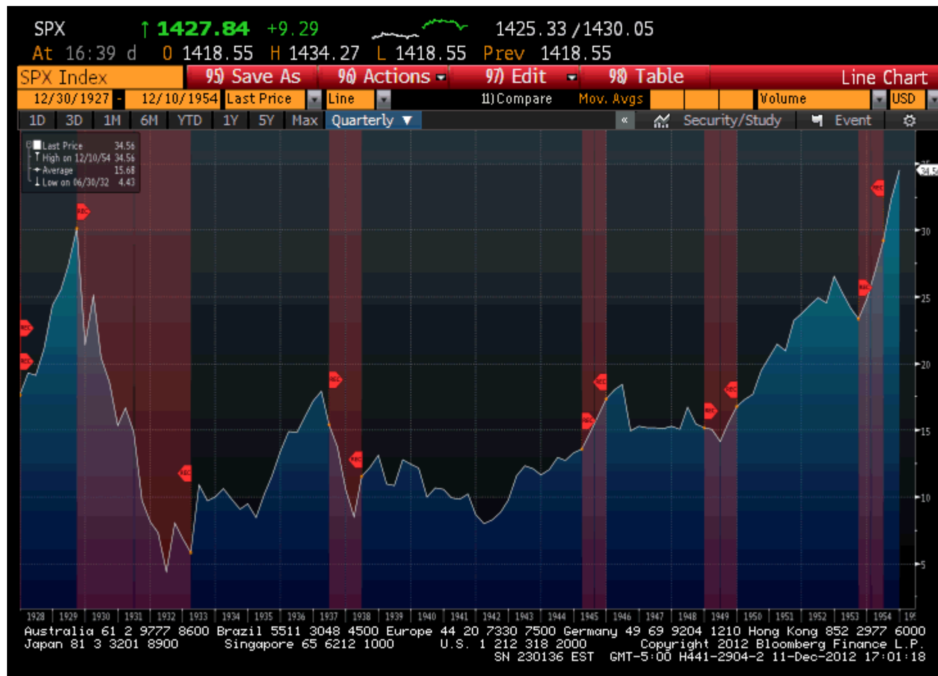
November 1929 continued to be volatile with many down days as there was no organized support for the market. Galbraith questions the statistic validity of the number of suicides in the New York city area between 1925-1934 showing that the numbers of suicides increased around the time of the crash and thereafter.[90] In December 1929 the market recovered slightly towards year end.

From 1930 onwards - due to a lack of Fed policy and a general laissez fair policy the market continued to slide until it reached its low in 1933. Because President Hoover (a Republican) did not believe in market interventions and stimuli, the stock market went on a downward spiral, the economy suffered badly, resulting in the "Great Depression", a period of extremely high levels of unemployment and GDP contraction. Three years later Franklin D Roosevelt won the elections in November 1932 and took over office in March 1933. He kicked off with a three-day bank holiday and launched his economic program, the "New Deal" which stabilized the markets and the economy for several years. The banking sector declined from 29,000 banks in 1921 to around 22,000 banks in 1930 - a reduction of 7,000 banks – and another 3,000 banks did not open after the 1933 three-day bank holiday. However, the stock market didn't reach the levels of 1929 until 1954 - 25 years later.

[89] Ibid. p.145
[90] GEORGE WASHINGTON UNIVERSITY. *Eleanor Roosevelt Papers Project* http://www.gwu.edu/~erpapers/teachinger/glossary/great-depression.cfm visited 2 August 2013

Chart 1: S&P 500: 1927-1954 with recession periods [91]

The following chart shows the price performance of the S&P 90 (the predecessor of the S&P 500 created in 1957) between 1927 and 1954, i.e. from before the Great Crash of 1929 with the sharp increase in share prices from January to October 1929 and the long correction until the market reached a bottom in 1932/1933. The periods of recession include the long recession from 1929 to 1933, as well as short recessions in 1937-38, 1945, 1948-49 and 1954. It took the S&P until 1954 to reach the price levels of 1929. It is also interesting to note that during 1937-38 the stock market did not go down as much as in 1929-33. In 1945, 1948-49 and 1953-54 stocks increased.



After 1929 as well as after 2008 politicians and the media adopted the popular view that speculators and hedge funds were responsible for and beneficiaries of the crisis. In both instances the politicians felt that the lack of regulation was also part of the problem.

In the aftermath of the GC the US government introduced several laws in order to regulate the markets.[92] These laws were designed to protect investors and market participants and provide greater stability.

The Securities Act of 1933[93]focused on primary markets (new issues) and had two major objectives:[94]

1. Provision of material information for investors
2. Prohibition of misrepresentation

[91] BLOOMBERG FINANCE L.P., Bloomberg Terminal, visited 11 December 2012

[92] ASTARITA, Mark. *Introduction to Securities Laws.* Seclaw.com http://www.seclaw.com/seclaw.htm visited 23 December 2012

[93] U.S. SECURITIES AND EXCHANGE COMMISSION. 2012. *Securities Act of 1933.* https://www.sec.gov/about/laws/sa33.pdf visited 20 August 2015

[94] U.S. SECURITIES AND EXCHANGE COMMISSION, *The Laws That Govern The Securities Industry*, http://www.sec.gov/about/laws.shtml visited 14 February 2013

The second major legislation was the Securities Exchange Act of 1934 which introduced more regulation and created the SEC (U.S. Securities and Exchange Commission).[95] [96] The Act also governs the secondary trading in stocks and bonds.

The third set of legislation in the context of market regulation were the Investment Company Act of 1940 (regulating the fund management industry) and the Investment Advisers Act of 1940 (regulating the investment managers (advisers)).[97]

4. Comparison of Sources and Theories on the Great Crash of 1929

Table 1: Comparison of the major sources of the analysis of the Great Crash of 1929

In the following table I give an overview of the different views of the 4 major sources of this thesis.

Commission Report 1934[98]	Galbraith 1954 [99]	Friedman 1963 [100]	Bierman1998 [101]
The Commission Report is very clear in its language and blames the banks and its officers as well as the Federal Reserve for the Great Crash of 1929.	For Galbraith the Great Crash of 1929 was a consequence of wide speculation, massive leverage, and criminal offences.	The two authors argue mainly from a monetary point of view, and believe that the great crash of 1929 was the result of inadequate monetary policy. They blame mainly the Fed for their inaction and their underdeveloped tools.	Bierman disagrees that 1929 was only a bursting of a speculative bubble, but thinks that there were elements such as a new economic era, that there were illusions of a new economic era, as well as unsuccessful events and actions to stop the bull market which in itself created the collapse of the market.

The Commission Report of 1931 gives an excellent insight into the first series of investigations and the mood two years after Great Crash. After 1000 pages of hearings the report has another 100 pages of information about broker loans, call loans, bank investments and security affiliates. The 1931 Hearings and the 100 pages short 1931 Report were based on a tighter mandate than the later 1934 Report.

The statistical data reports give a good overview of the change in the banking system in the US prior to Great Crash of 1929 and the aftermath. It shows that the bank system was not efficient (large number of banks making a loss, very large number of banks making only a very small profit), a large fragmentation of the banking system without many branches. It also shows that only a small number of

[95] U.S SECURITIES AND EXCHANGE COMMISSION, How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation, http://www.sec.gov/about/whatwedo.shtml#create visited 23 December 2012

[96] U.S. SECURITIES AND EXCHANGE COMMISSION. 2012. *Securities Exchange Act of 1934.* https://www.sec.gov/about/laws/sea34.pdf visited 20 August 2015

[97] U.S. SECURITIES AND EXCHANGE COMMISSION. 2012. *Investment Company Act of 1940.* http://www.sec.gov/about/laws/ica40.pdf visited 20 August 2015

[98] COMMITTEE ON BANKING AND CURRENCY (1932) op. cit.

[99] GALBRAITH (2009) op. cit.

[100] FRIEDMAN (1961) op cit.

[101] BIERMAN (1998) op. cit.

banks were in chains or groups which only changed after 1929. More than 7,000 banks went out of business after the GC and another 3,000 banks closed in 1933 after a three-day bank holiday imposed by the new president Franklin D Roosevelt.

The 1934 Report shows that there was massive speculation on all fronts, both by liquidity takers (Investment trusts, holding companies, traders) and as wells as liquidity providers (broker loans, call loans). There were also serious deficiencies in the system (pool systems, listings, director dealings): the unsound practices and methods of the banks and private banks, their conflicts of interest and abuses of their positions in the markets. Both commercial banks and private banks acted sometimes as liquidity takers and sometimes as liquidity providers. Group banking and chain banking was another major factor in the abuses in 1929 and prior to that, and tax avoidance was another major aspect of Crisis of 1929. Many vehicles were highly levered and largely responsible for the excess in the market.

Milton Friedman describes the 1920s as a period of "fairly rapid economic growth without major contraction."[102] He also mentions innovations such as the automobile industry and the general bull market had a negative on Americans. He praises the "loose connection in timing between the movement and economic activity, and the explicit policy measures taken by the Fed".[103] He also mentions the gold movements as important criteria for Federal Reserve policy. Milton Friedman thinks that the different views in fighting the speculation in 1929 (qualitative view, pressure by the Fed Board in Washington versus the quantitative view, and increase of interest rates developed by the banks in New York) as a major issue in the crucial year of 1929.

Bierman comes to the following conclusions:

- Stock market was not too high if one uses financial fundamentals to evaluate stocks
- The business conditions in 1929 were sound
- The Yale endowment managed by Irving Fisher was not speculative
- The Hatry Affair was not a supporting factor for the crisis
- Illegal stock market did not cause boom or crash
- Charles Mitchell (National City) deserves much fairer treatment than Wiggin (Chase) who was more suspect, not because of Chase's share dealings 1929, but due to stock dealings 1932
- The Sam Insull Affair: he had too much debt, got destroyed by the press and Federal government, but he was never convicted.
- A fear of speculation pushed stock market down, as well as Hoover's aggressive campaign against speculation.

According to Ferguson the Fed is not to blame for the bubble itself, but bears the primary responsibility for turning the GC into the Great Depression.[104] Until 1928 there seems to have been a greater balance at the Fed between Washington Federal Board and the New York Fed because of Governor Benjamin Strong. After his death his successor Daniel Crissinger and colleagues find it more difficult to resist the pressure of the New York Fed.

Milton Friedman asserts that the "monetary collapse was not an inescapable consequence of other forces, but rather a largely independent factor which exerted a powerful influence on the course of events. The failure of the Fed system to prevent the collapse reflected not the impotence of monetary policy, but rather in particular the policies following by the monetary authorities and, in smaller degree the particular monetary arrangements in existence"[105]. More surprisingly Milton Friedman, the leading monetarist, argues that contraction between 1929 and 1933 is "in fact a tragic testimonial to the importance of monetary forces".[106] He and many others believe that the Fed should have done more after the crisis to prevent a collapse in the economy and hence prevent the Great Depression. Ben

[102] FRIEDMAN (1961) op cit. p. 240
[103] Ibid.
[104] FERGUSON (2008) op. cit. p. 162
[105] FRIEDMAN (1961) op. cit. p. 300
[106] Ibid.

Bernanke, chairman of the Federal Reserve in Washington (2006-now), often called a student of the Great Depression, used this insight during the 2008 crisis.

5. Conclusions

I have shown that the 1920s were a decade of economic prosperity and development, interrupted by three short recessions in 1920-21, 1923-24 and 1926-27. The stock market rally started in 1924 and lasted for 5 years until 1929 ending in the GC with Black Thursday and Black Tuesday. While there is still disagreement about the causes and reasons for the great crash of 1929, I have shown in the previous pages and chapters that there are the following facts that contributed to the Crash on Wall Street and the ensuing economic collapse:

- The stock markets players used leverage on several different levels (margins, broker loans, call loans, IT, holding company).
- This multiple use of leverage made the market vulnerable to shocks and to a general change in sentiment.
- Sophisticated new instruments and players (IT, holding companies, margin buying, call loan).
- Banks and investment banks engaged both in liquidity taking as well as liquidity providing activities.
- When the crisis hit the markets, many liquidity providers who retrenched from the markets and the Fed as the lender of last resort had to come in to provide ample liquidity to the markets.
- The Great Crash was mainly a US phenomenom. Europe suffered for other reasons – political instability and post war effects.

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